



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : C07K 16/28, C12N 15/13, 15/63, A61K 39/395	A1	(11) International Publication Number: WO 00/31141 (43) International Publication Date: 2 June 2000 (02.06.00)
(21) International Application Number: PCT/KR99/00699 (22) International Filing Date: 19 November 1999 (19.11.99) (30) Priority Data: 1998/49663 19 November 1998 (19.11.98) KR (71) Applicants (for all designated States except US): KOREA INSTITUTE OF SCIENCE AND TECHNOLOGY [KR/KR]; 39-1 Hawolgok-dong, Sungbuk-ku, Seoul 136-130 (KR). KOREA GREEN CROSS CORPORATION [KR/KR]; 227 Gugal-ri, Kiheung-eup, Yongin-si, Kyonggido 449-900 (KR). (72) Inventors; and (75) Inventors/Applicants (for US only): HONG, Hyo, Jeong [KR/KR]; #15-401 Kit Apt., 237 Kajeong-dong, Eusong-ku, Taejon-si 305-350 (KR). RYU, Chun, Jeih [KR/KR]; #136-1203 Hanbit Apt., 99 Oeun-dong, Eusong-ku, Taejon-si 305-333 (KR). HUR, Hyangsuk [KR/KR]; #106-1508 Expo Apt., Jeonmin-dong, Eusong-ku, Taejon-si 305-390 (KR). (74) Agent: LEE, Won-Hee; Suite 805, Sung-ji Heights II, 642-16 Yoksam-dong, Kangnam-ku, Seoul 135-080 (KR).	(81) Designated States: CA, JP, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i> <i>With amended claims.</i> Date of publication of the amended claims: 20 July 2000 (20.07.00)	
(54) Title: HUMANIZED ANTIBODY SPECIFIC FOR SURFACE ANTIGEN PRE-S1 OF HBV AND PREPARATION METHOD THEREOF		
(57) Abstract The present invention relates to humanized antibodies specific for HBV surface antigen pre-S1, which show binding affinity similar to mouse monoclonal antibody and which show remarkably reduced immunogenicity since they have less mouse-derived amino acid residues. Thus, the humanized antibodies of the present invention may be useful for the prevention of HBV infection and for the treatment of hepatitis B.		